

1 **CLAIMS**

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3 1. A network system, comprising:

4 a network server configured to maintain network access information
5 corresponding to users authorized to access the network system;

6 a domain controller remotely located from the network server and
7 communicatively linked with the network server, the domain controller configured
8 to cache the network access information; and

9 the domain controller further configured to track individual users that
10 request access to the network system from the domain controller.

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12 2. A network system as recited in claim 1, wherein the domain
13 controller is further configured to cache the network access information only for
14 the individual users that request access to the network system from the domain
15 controller.

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17 3. A network system as recited in claim 1, wherein the domain
18 controller is further configured to update the network access information at the
19 domain controller for the individual users that request access to the network
20 system from the domain controller.

21

22 4. A network system as recited in claim 1, wherein the domain
23 controller is further configured to update the network access information at the
24 domain controller for the individual users that request access to the network
25 system from the domain controller within a defined time interval.

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2 5. A network system as recited in claim 1, wherein the domain
3 controller is further configured to receive a network access request from a user and
4 validate the network access request with the network access information cached at
5 the domain controller.

6
7 6. A network system as recited in claim 1, wherein:

8 the domain controller is further configured to receive a network access
9 request from a user and validate the network access request with the network
10 access information maintained in the network server before the domain controller
11 caches the network access information; and

12 the domain controller is further configured to receive a second network
13 access request from the user and validate the second network access request with
14 the network access information cached at the domain controller.

15
16 7. A network system as recited in claim 1, wherein:

17 the domain controller is further configured to receive a network access
18 request from a user and validate the network access request with the network
19 access information maintained in the network server before the domain controller
20 caches the network access information; and

21 the domain controller is further configured to receive a second network
22 access request from the user and validate the second network access request with
23 the network access information cached at the domain controller if the second
24 network access request is within a defined time interval.

1 **8.** A network system as recited in claim 1, wherein:
2 the network access information comprises identifiers to indicate network
3 group memberships that an individual user is a member of in the network system;
4 and
5 the domain controller is further configured to maintain user objects
6 associated with the individual users that request access to the network system from
7 the domain controller, and cache the identifiers to the user objects.

8
9 **9.** A network system, comprising:
10 a network server configured to maintain network access information
11 corresponding to users authorized to access the network system;
12 a domain controller remotely located from the network server and
13 communicatively linked with the network server, the domain controller configured
14 to cache the network access information; and
15 the domain controller further configured to update the network access
16 information at the domain controller for individual users authorized to access the
17 network system from the domain controller.

18
19 **10.** A network system as recited in claim 9, wherein the domain
20 controller is further configured to track the individual users that access the
21 network system from the domain controller.

1 **11.** A network system as recited in claim 9, wherein the domain
2 controller is further configured to cache the network access information only for
3 the individual users authorized to access the network system from the domain
4 controller.

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6 **12.** A network system as recited in claim 9, wherein the domain
7 controller is further configured to update the network access information at the
8 domain controller for the individual users that access the network system from the
9 domain controller within a defined time interval.

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11 **13.** A network system as recited in claim 9, wherein the domain
12 controller is further configured to receive a network access request from a user and
13 validate the network access request with the network access information cached at
14 the domain controller if the user accessed the network system from the domain
15 controller within a defined time interval.

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17 **14.** A network system as recited in claim 9, wherein:
18 the network access information comprises identifiers that indicate universal
19 group memberships that an individual user is a member of in the network system;
20 and
21 the domain controller is further configured to maintain user objects
22 associated with the individual users authorized to access the network system from
23 the domain controller, and cache the identifiers to the user objects.

1 **15.** A network, comprising:
2 a global information server configured to maintain network information
3 corresponding to users of the network;
4 a remote server communicatively linked with the global information server,
5 the remote server configured to:
6 cache the network information;
7 track individual users that request access to the network from the
8 remote server; and
9 update the network information at the remote server for users that
10 access the network from the remote server.

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12 **16.** A network as recited in claim 15, wherein the remote server is
13 further configured to update the network information at the remote server for users
14 that access the network from the remote server within a defined time interval.

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16 **17.** A network as recited in claim 15, wherein the remote server is
17 further configured to receive a user request to access the network and validate the
18 user request with the network information cached at the remote server if the user
19 accessed the network from the remote server within a defined time interval.

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21 **18.** A network as recited in claim 15, wherein the remote server is
22 further configured to track individual users that request access to the network
23 information cached at the remote server.

1 **19.** A network as recited in claim 15, wherein the remote server is
2 further configured to receive a user request to access the network information
3 cached at the remote server and validate the user request if the user accessed the
4 network from the remote server within a defined time interval.

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6 **20.** A method, comprising:
7 maintaining, at a first site, network access information that identifies users
8 authorized to access a network;
9 caching the network access information at a second site; and
10 tracking individual user requests to access the network from the second site.

11

12 **21.** A method as recited in claim 20, wherein said caching comprises
13 storing the network access information at the second site only for the individual
14 users that request access to the network from the second site.

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16 **22.** A method as recited in claim 20, further comprising updating the
17 network access information at the second site for the individual users that
18 periodically request access to the network from the second site.

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20 **23.** A method as recited in claim 20, further comprising updating the
21 network access information at the second site for the individual users that request
22 access to the network from the second site within a defined time interval.

1 **24.** A method as recited in claim 20, further comprising validating a
2 network access request from a user at the second site with the network access
3 information maintained at the first site, wherein said validating occurs before said
4 caching.

5
6 **25.** A method as recited in claim 20, further comprising:
7 validating a network access request from a user at the second site with the
8 network access information maintained at the first site, wherein said validating
9 occurs before said caching; and

10 validating a second network access request from the user at the second site,
11 said validating the second request with the network access information cached at
12 the second site.

13
14 **26.** A method as recited in claim 20, further comprising:
15 validating a network access request from a user at the second site with the
16 network access information maintained at the first site, wherein said validating
17 occurs before said caching; and

18 validating a second network access request from the user at the second site,
19 said validating the second request with the network access information cached at
20 the second site if the second request is within a defined time interval.

21
22 **27.** A computer-readable medium comprising computer executable
23 instructions that, when executed, direct a computing system to perform the method
24 of claim 20.

1 **28.** A method, comprising:

2 maintaining, at a first site, network access information that identifies users
3 authorized to access a network;

4 caching the network access information at a second site for individual users
5 that request access to the network from the second site;

6 tracking individual user requests to access the network from the second
7 site; and

8 updating the network access information at the second site for the
9 individual users that request access to the network from the second site within a
10 defined time interval.

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12 **29.** A method as recited in claim 28, further comprising validating a
13 network access request from a user at the second site with the network access
14 information cached at the second site if the request is within a defined time
15 interval.

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17 **30.** A computer-readable medium comprising computer executable
18 instructions that, when executed, direct a computing system to perform the method
19 of claim 28.

20
21 **31.** A computer-readable medium comprising computer executable
22 instructions that, when executed, direct a computing system to perform the method
23 of claim 29.

1 **32.** A method, comprising:
2 maintaining, at a first site, network access information that identifies users
3 authorized to access a network;
4 caching the network access information at a second site; and
5 updating the network access information at the second site for individual
6 users authorized to access the network from the second site.

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8 **33.** A method as recited in claim 32, further comprising tracking the
9 individual users that access the network from the second site.

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11 **34.** A method as recited in claim 32, wherein said caching comprises
12 storing the network access information at the second site only for the individual
13 users that access the network from the second site.

14
15 **35.** A method as recited in claim 32, further comprising updating the
16 network access information at the second site for the individual users that access
17 the network from the second site within a defined time interval.

18
19 **36.** A method as recited in claim 32, further comprising validating a
20 network access request at the second site with the network access information
21 cached at the second site if the request is within a defined time interval.

22
23 **37.** A computer-readable medium comprising computer executable
24 instructions that, when executed, direct a computing system to perform the method
25 of claim 32.

38. A method, comprising:

maintaining, at a network global information server, network information corresponding to users of the network;

caching the network information at a remote server;

tracking users that access the remote server; and

updating the network information cached at the remote server with the network information maintained at the global information server for users authorized to access the network from the remote server, and that accessed the remote server within a defined time interval.

39. A method as recited in claim 38, further comprising:

receiving a user request to access the network; and

validating the user request with the network information cached at the remote server.

40. A method as recited in claim 38, further comprising:

receiving a user request to access the network; and

validating the user request with the network information cached at the remote server if the request is received within a defined time interval.

1 **41.** A method as recited in claim 38, further comprising:
2 tracking users that access the cached network information; and
3 updating the network information cached at the remote server with the
4 network information maintained at the global information server for users
5 authorized to access the network information from the remote server, and that
6 accessed the network information within a defined time interval.

7
8 **42.** A method as recited in claim 38, further comprising:
9 receiving a user request to access the network information; and
10 validating the user request at the remote server.

11
12 **43.** A method as recited in claim 38, further comprising:
13 receiving a user request to access the network information; and
14 validating the user request at the remote server if the request is received
15 within a defined time interval.

16
17 **44.** A computer-readable medium comprising computer executable
18 instructions that, when executed, direct a computing system to perform the method
19 of claim 38.

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21 **45.** A method, comprising:
22 caching network security information at a network controller from a central
23 network data store; and
24 updating the network security information at the network controller for
25 accounts authorized to access a network from the network controller.

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2 **46.** A method as recited in claim 45, wherein said caching comprises
3 storing the network security information at the network controller only for the
4 accounts that access the network from the network controller.

5
6 **47.** A method as recited in claim 45, further comprising tracking the
7 accounts that access the network from the network controller.

8
9 **48.** A method as recited in claim 45, further comprising tracking the
10 accounts that access the network from the network controller, and wherein said
11 caching comprises storing the network security information at the network
12 controller only for the accounts identified when said tracking.

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14 **49.** A method as recited in claim 45, further comprising updating the
15 network security information at the network controller for accounts that access the
16 network from the network controller within a defined time interval.

17
18 **50.** A method as recited in claim 45, further comprising:
19 receiving an account request to access the network; and
20 validating the request with the network security information cached at the
21 network controller.

1 **51.** A method as recited in claim 45, further comprising:
2 receiving an account request to access the network; and
3 validating the request with the network security information cached at the
4 network controller if the request is within a defined time interval.

5
6 **52.** A computer-readable medium comprising computer executable
7 instructions that, when executed, direct a computing system to perform the method
8 of claim 45.

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